Appl. No. 10/645,699
Amdt. dated February 28, 2008
Reply to Office Action dated August 3, 2007

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REMARKS/ARGUMENTS

In response to the Office Action mailed December 31, 2007 (designated "Final"),
Applicants respectfully submit this Amendment After Final, which is filed with an
accompanying Request for Continued Examination (RCE). The Amendment After Final amends
independent claims (1, 9, 12) and adds new independent claim 21 and claims 22-24 dependent
therefrom. All amended claims and newly added claims are supported by the specification as
filed. No new matter has been added. It is respectfully asserted that the proposed combinations
of cited art are not appropriate, would not be successful, and would not provide the invention
recited in the amended claims. Thus, the claims as amended are not rendered obvious by the
proposed combinations. Entry of this Amendment After Final per the accompanying RCE, and
further examination of the application, as amended, are requested.

A. Rejected Claims

Claims 1, 2, 4, 5, 9, 12, and 14-20 are pending; claims 21-24 are added with this
Amendment After Final. Claims 3, 6, 7, 8, 10, 11, and 13 were previously canceled. In the
Office Action of December 31, 2007, claims 1, 2, 4, 5, 9, 12, 14-17, 19, and 20 were rejected
under 35 U.S.C. § 103(a) as allegedly unpatentable over four cited references, comprising the
combination of Rabinovich, Kanai, Calo, and Yamada. Claim 18 was rejected under 35 U.S.C.
§ 103(a) as allegedly unpatentable over the combination of Rabinovich, Kanai, Calo, and
Yamada, and further in view of Sunna.

B. Claim Amendments

The claims relate to a system in which client computers request data files from
server computers. When source servers run short of space, files can be migrated to auxiliary
(i.e., migration) servers. Latency for retrieving the data files can increase, depending on the
relative location of the source server, migration server, and client computer. Therefore, the
system described in the specification records access information to source server data files stored
in a first network from client computers in a second network, and searches for candidate
migration servers in the second network. If suitable migration servers are found, then the data is
migrated from the source server to a migration server. The system engages in processes to

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ensure that suitable migration servers are found and to ensure that the change in location is known to the network computers (clients and servers). As recited in the new claim amendments, the system also can receive a return request packet from the second computer and issue a read request in response, for returning the file to the first computer. If so, then the file is received and stored to the source server when the file is returned to the source server from the migration server.

Taking claim 1 as an example, the amendment recites a module for judging return of the file, as follows:

1	1. (currently amended) A computer system comprising a first
2	network, a first computer connected to the first network, a second network
3	connected to the first network, and a second computer and a third computer
4	connected to the second network, the first computer comprising:
5	a communication interface for connecting the first computer to the
6	first network;
7	a disk storage device for storing data;
8	a disk interface for communicating data with the disk storage
9	device;
10	a CPU for controlling the first computer; and
11	a memory for storing data and program code for operating the
12	CPU,
13	wherein the program code includes:
14	a module for recording situations of access to a file stored in the
15	disk storage device from the third computer, the module being executed by the
16	CPU at predetermined intervals, and
17	wherein the program code is executed depending on the access
18	situation, the program code further including:
19	a module for searching the second network connected to the third
20	computer;

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21   a module for searching a candidate for migration for the second

22   network;

23   a module for designating the file as the candidate for migration to

24   the second computer;

25   a module for transmitting a migrator acceptor search packet to the

26   second computer for inquiring whether or not the second computer can accept the

27   file;

28   a module for receiving a reply packet from the second computer as

29   a response to the migrator acceptor search packet;

30   a module for transmitting an advertisement packet to the third

31   computer either after or before the file is transferred to the second computer, the

32   advertisement packet indicating that the file is transferred to the second computer;

33   a module for transferring the file to the second computer;

34   a module for storing information indicative of whether the file has

35   been transferred to the second computer or the file exists in the first computer;

36   a module for storing a path name for the second computer when

37   the file has been transferred to the second computer;

38   a module for allowing the third computer to access the file via the

39   first computer based on the information and the path name when the first

40   computer receives an access request for the file after the file has been transferred

41   to the second computer;

42   <u>a module for receiving a return request packet from the second</u>

43   <u>computer and issuing a read request in response, for returning the file to the first</u>

44   <u>computer</u>; and

45   a module for receiving and storing the file in the first computer,

46   when the file is returned to the first computer from the second computer.

The other independent claims contain a similar amendment. New claim 21 is a method claim directed to the same features.

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C. Rejection of Prior Claim Set

It is well-settled that, to establish a *prima facie* case of obviousness, the prior art references must teach or suggest all the claim limitations. In addition, there must be some suggestion or motivation to modify the reference or combine the reference teachings, and there must be a reasonable expectation of success in the combination or modification. Applicants respectfully submit that the references, either alone or in combination, fail to teach or suggest all the claim limitations, and submit that there is no motivation to modify the references in a manner that provides for the missing claim features.

1. Feature of *"receiving and storing the file in the first computer, when the file is returned to the first computer from the second computer"*

In the Office Action, it was acknowledged that the combination of Rabinovich, Kanai, and Calo does not teach the feature of "receiving and storing the file in the first computer, when the file is returned from the second computer" (see Page 11 of the OfficeAction). It was asserted that Yamada provides this feature at Paragraph 0095 and 0009.

Yamada relates to restoring the operating environment of a client computer after replacement of a hard disk in the client computer (see Paragraph 0009 of Yamada). If a server unit maintains a log of client processing (Paragraph 0016), the log file can be downloaded to the client for updating before the client is rebooted, returned to the server before the client is rebooted, then downloaded to the client after it is rebooted, and thereafter updated.

In the claims, the "first computer" refers to a computer connected to a first network, the "second computer" refers to a computer connected to a second network that is connected to the first network, and the "data file" is a file that is requested by a third computer connected to the second network. Yamada merely relates to moving a data file from a server computer to a client computer for update, with return of the data file to its server computer and then subsequent return to the client after rebooting.

It is submitted that Yamada is cited completely out of context and has nothing to do with recording access information on source server data files stored in a first network from client computers in a second network, searching for candidate migration servers in the second

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network, and migrating the data from the source server to a migration server if a suitable migration server is found.

In the Office Action, Yamada was combined with Rabinovich and Kanai and Calo. Rabinovich describes a system in which files are replicated and then the replicas are distributed according to frequency of access. This is useful, for example, over the Internet, where requests are received for replicas (copies) of Web pages (files) and the replicas are distributed from source servers to cache servers. Distribution of replicas becomes important to quickly serve up requested pages. See Rabinovich at column 1, lines 11-27. Kanai relates to periodically accessing electronics information stored in a computer to collect status of the information for certifying release of the information. Calo relates to executing applications at proxy servers rather than origin servers and for redirecting requests for records from the origin server to the proxy servers.

Yamada at paragraph 0095 was cited for showing the claimed *"receiving and storing the file in the first computer, when the file is returned from the second computer."* As noted above, that cited portion of Yamada merely refers to updating of a log file between a client and server combination (a single "network") in between rebooting of the client. In fact, nothing in Yamada relates to recording access information on source server data files stored in a first network from client computers in a second network, searching for candidate migration servers in the second network, and migrating the data from the source server to a migration server if a suitable migration server is found. It is submitted that there is no reason to combine Yamada's client-server restoration of a client operating environment with Rabinovich's replication and distribution of Internet files from source servers to cache servers, and Kanai's collecting status of stored electronics information and Calo's proxy servers executing applications in place of origin servers. Moreover, it is submitted that no combination of Rabinovich, Kanai, Calo, and Yamada can provide the claimed feature of *"receiving and storing the file in the first computer, when the file is returned from the second computer."*

2. New Feature of *"receiving a return request packet from the second computer and issuing a read request in response, for returning the file to the first computer "*

The independent claims include the newly recited feature of receiving a return request packet from the second computer and issuing a read request in response, for returning the file to the first computer. The amended independent claims 1, 9, and 12 contain this feature by amendment, new claim 21 is a method claim analogous to claim 1, and also incorporates the feature. This feature is described in the specification at page 40 and at Figures 19, 20. This "return request" feature relates to the feature of returning the file back from the second computer to the first computer, discussed above, which is described in the specification at pages 40-41 and at Figure 21. As noted in the specification at page 40, the first computer that receives a return request packet issues a read request for the file to the migration server (second computer), which issued the return request packet. The first computer receives the file from the second computer and stores the file in its disk storage device.

None of the cited references contains any mention or suggestion of receiving a "return request packet" at a first computer (in a first network) from a second computer (in a second network) and issuing a read packet in response, for returning the file to the first computer. It is submitted that no combination of the cited references could provide the claimed "return request packet" feature.

As noted above, Rabinovich describes a system in which files are replicated and then the replicas are distributed according to frequency of access. Rabinovich is directed to this problem. But Rabinovich is not directed to processing in a data access system such as that claimed. Similarly, Kanai relates to periodically accessing electronics information stored in a computer to collect status of the information, but is not related to the claimed invention, nor is it related to the goals of Rabinovich. Likewise, Calo relates to executing applications at proxy servers rather than origin servers and for redirecting requests for records from the origin server to the proxy servers, but Calo is not related to the features of the claimed invention.

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CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,

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